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BOROUGH OF WIDNES.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE

YEAR 1925.

WIDNES :

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BOROUGH OF WIDNES.

ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
1925

TO THE CHAIRMAN AND MEMBERS OF THE
HEALTH COMMITTEE.

GENTLEMEN,

I have the honour to present to you my Annual Report, which deals with the Vital Statistics and Sanitary Administration of the Borough of Widnes for the year 1925.

In accordance with the instructions of the Ministry of Health, a detailed survey report has been prepared.

The chief features in the Statistics are as follows:—

1. A low infant mortality rate.
2. A reduced death rate.
3. A lower incidence of Infectious Disease.

Further progress has been made with the conversion of privy middens and the abolition of ash pits.

The Maternity and Child Welfare work has been extended during the year by the establishment of an Ante-natal Clinic and the adoption of an Orthopædic Scheme.

In presenting this Report, I wish to express my sincere thanks to the members of the Health Committee for the kindness they have shown to me, and for the attention and consideration which they have given to my recommendations.

I wish also to express my gratitude to the heads of the various departments for their valuable help and advice, and to the many voluntary workers for their assistance and co-operation in the Maternity and Child Welfare service.

I must also acknowledge my appreciation of the efficient manner in which the members of the Staff have carried out their respective duties.

I am, Gentlemen,

Your obedient servant,

A. JONES,

Medical Officer of Health.

I. NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT

GENERAL DESCRIPTION OF THE BOROUGH—

Widnes is a Municipal Borough situated on the north bank of the estuary of the River Mersey, and is twelve miles south-east of Liverpool. The Charter of Incorporation of the Borough was granted in 1892.

Under the Ministry of Health Provisional Order (Widnes Extension) Confirmation Act, 1920, the following districts were included in the Borough as from 9th November, 1920:—

- (a) The major part of the Township of Ditton.
- (b) Part of the Township of Halewood.
- (c) Part of the Township of Cuerdley.

The town is about four miles in length from north to south and nearly four miles wide from east to west. The subsoil is clay, varying in depth from 6 to 23 feet, and overlying red sandstone. There is a gradual ascent from the south or river end to the north, the surface of the lowest street being 18.60 above O.D. and the level of the highest street 164.00 above O.D.

The area of the Borough is 6,178 acres, including 386 acres covered by water. The prevailing winds are south-west, which come from the sea through the Mersey Valley.

The annual rainfall in 1924 was 33, and in 1925, 27 inches.

Widnes is wholly an industrial community, the principal trade being chemical manufacture carried on in large works belonging to the United Alkali Co., Ltd. There are three large copper works, one soap works, also works for metal extraction and other kindred industries. These works lie principally at the south end of the town, near the river, canal, and docks. The works situated in the extended portion of the Borough are the Broughton Copper Works and the Calder and Mersey Extract Co., Ltd. The asbestilite works, and the chemical works of Messrs. Spence & Co. are situated in the north-east of the Borough, so that residential development must occur in the north and north-westerly portions of the Borough.

The Borough is divided into seven wards, the area and other particulars of which are set out in the tables in the report.

POPULATION—

The population returns since 1861 are given below:—

Year	Population	Inhabited houses	Average per house
1861	6,893	1,150	5.99
1871	14,359	2,519	5.66
1881	24,918	4,994	5.0
1891	30,011	5,121	5.86
1901	28,580	5,350	5.34
1911	31,544	6,102	5.16
1921	38,879	7,437	5.22

The census of 1921, originally planned for the 24th April, was postponed until the 19th June. The Registrar-General had reason to believe that some holiday movement was already in progress during the month of June, and an adjustment of the census figures was consequently necessary. The amended population, as estimated by the Registrar-General, was 39,720. The estimated population for the year 1925 was 42,100.

BIRTHS—

	Total	Males	Females	Birth-rate (R.G.)	
Legitimate	934	481	453		
Illegitimate	25	19	6		
Birth-rate for England and Wales				—	18.3

The following table gives the number of births registered in the Borough, and indicates the wards in which they occurred:—

WARD	M.	F.	Total	No of Births which were illegitimate	Birth-rate per 1000 estimated Population
Farnworth ...	98	77	175	3	22.4
Halton ...	84	68	152	3	24.1
Simms Cross ...	78	71	149	3	21.6
Victoria ...	72	90	162	5	24.2
Waterloo ...	77	71	148	7	28.4
West Bank ...	45	39	84	1	19.7
Ditton	46	43	89	3	17.8
Whole Borough ...	500	459	959	25	22.7

ILLEGITIMATE BIRTHS—

The percentage of births, which were illegitimate, during each of the past ten years is as follows:—

1916 ...	1.6 per cent.	1921 ...	3.1 per cent.
1917 ...	2.5 per cent.	1922 ...	2.5 per cent.
1918 ...	4.6 per cent.	1923 ...	2.4 per cent.
1919 ...	5.4 per cent.	1924 ...	2.3 per cent.
1920 ...	2.3 per cent.	1925 ...	2.6 per cent.

CAUSES OF, AND AGES AT, DEATH DURING YEAR 1925—

CAUSES OF DEATH	All Ages	Under 1 Year	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.
All Causes—Certified ...	505	78	21	19	21	22	71	130	143
„ Uncertified	11	2	—	—	—	—	1	5	3
Enteric Fever	1	—	—	—	—	—	—	1	—
Measles	—	—	—	—	—	—	—	—	—
Scarlet Fever	4	—	—	3	1	—	—	—	—
Whooping-cough	17	10	2	5	—	—	—	—	—
Diphtheria	4	—	1	1	2	—	—	—	—
Influenza	30	—	—	—	1	1	5	13	10
Encephalitis Lethargica	1	—	—	—	—	—	—	1	—
Meningococcal Meningitis	—	—	—	—	—	—	—	—	—
Tuberculosis of Respira- tory Organs	41	—	1	—	2	8	21	8	1
Other Tuberculous Diseases	11	1	1	1	2	2	3	1	—
Cancer, malignant disease	40	—	—	—	—	—	3	24	13
Rheumatic Fever	4	—	—	—	—	1	1	2	—
Diabetes	2	—	—	—	—	—	—	1	1
Cerebral Haemorrhage, &c.	36	—	—	—	—	—	—	13	23
Heart Disease	38	—	—	—	1	1	2	23	11
Arterio-sclerosis... ..	11	—	—	—	—	—	—	7	4
Bronchitis	32	2	1	—	—	—	1	6	22
Pneumonia (all forms) ...	41	4	7	4	1	2	9	7	7
Other Respiratory Diseases	4	—	—	—	—	—	2	2	—
Ulcer of Stomach or Duodenum	3	—	—	—	—	—	—	3	—
Diarrhoea, etc., under 2 years	16	15	1	—	—	—	—	—	—
Appendicitis and Typhlitis	1	—	—	—	—	1	—	—	—
Cirrhosis of Liver	—	—	—	—	—	—	—	—	—
Acute and Chronic Ne- phritis	7	—	—	—	1	—	—	5	1
Puerperal Sepsis	1	—	—	—	—	—	1	—	—
Other Accidents and Dis- eases of Pregnancy and Parturition	2	—	—	—	—	—	2	—	—
Congenital Debility and Malformation, including Premature Birth	28	28	—	—	—	—	—	—	—
Suicide	4	—	—	—	—	—	2	1	1
Other Deaths from Violence	8	—	1	—	1	1	4	1	—
Other Defined Diseases...	125	20	6	5	9	5	15	15	50
Causes Ill-Defined or Un- known... ..	4	—	—	—	—	—	1	1	2
TOTALS	516	80	21	19	21	22	72	135	146

The following table summarises the Vital Statistics of the Borough:—

			Per 1,000 of Population.			
			Birth Rate.	Death Rate.	Death rate from Tuberculosis of Respiratory System.	Rate of Deaths under 1 year to 1,000 Births.
Mean of 5 years—						
1895-1899	...		33.3	18.3	0.76	188
1900-1904	...		33.2	17.1	0.41	168
1905-1909	...		31.8	17.1	0.70	154
1910-1914	...		31.0	16.8	1.03	133
1915-1919	...		26.0	17.9	1.31	111
1920-1924	...		27.1	13.7	1.02	92
Year—						
1924	...	...	22.8	13.2	1.00	106
1925	...	...	22.7	12.2	0.97	83
Increase or decrease in 1925 on mean of 5 years 1920-1924						
...	...	...	—4.4	—1.5	—0.05	—9
Previous year	...	...	—0.1	—1.0	—0.03	—23

CHURCHES.

MORTALITY FROM ALL CAUSES—

The following table shows the distribution of deaths in the various Wards of the Borough:—

Ward	Under 1	1—2	2—5	5—15	15—25	25—45	45—65	over 65	Total
Farnworth	7	1	2	4	1	13	20	26	74
Halton	14	4	5	3	1	7	9	18	61
Simm's Cross	9	5	2	4	5	9	30	20	84
Victoria	22	4	6	3	4	18	35	25	117
Waterloo	10	5	3	3	5	9	15	13	63
West Bank	6	—	1	3	4	11	10	23	58
Ditton	12	2	—	1	2	5	16	21	59
TOTALS	80	21	19	21	22	72	135	146	516

INFANTILE MORTALITY—

The number of deaths during the year of children under 1 year of age was 80, which represents an infantile mortality rate of 83 per 1,000 births. The Infant Mortality Rate for England and Wales during the year was 75 per 1,000 births.

The causes of deaths of infants during 1925 are recorded in the following table:—

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths under 1 Year.
All causes, Certified ...	17	6	5	2	30	8	16	14	10	78
„ Uncertified	—	—	—	—	—	—	1	1	—	2
Whooping Cough ...	—	—	—	—	—	2	5	2	1	10
Measles	—	—	—	—	—	—	—	—	—	—
Influenza	—	—	—	—	—	—	—	—	—	—
Convulsions	—	—	1	1	2	1	3	2	2	10
Bronchitis	—	—	—	—	—	—	—	—	2	2
Pneumonia (all forms)...	—	—	—	—	—	—	1	2	1	4
Tuberculosis	—	—	—	—	—	—	1	—	—	1
Enteritis and Diarrhoea	—	—	—	—	—	—	6	5	4	15
Gastritis	—	—	—	—	—	—	—	—	—	—
Congenital Malformations	1	1	—	—	2	2	—	—	—	4
Premature Birth ...	9	1	3	1	14	3	—	—	—	17
Atrophy, Debility, and Marasmus	5	2	—	—	—	—	—	—	—	7
Other causes	2	2	1	—	5	—	1	2	2	10
TOTALS ...	17	6	5	2	30	8	17	15	10	80

The following table gives the Infant Mortality per 1,000 Births in the wards of the Borough:—

Year.	Farnw'th.	Halton.	Simms Cross.	Vict'ia	W'terloo.	West Bank.	Ditton .	Total.
1915	87	63	136	104	234	214	—	138
1916	66	99	159	125	69	160	—	110
1917	105	83	83	73	189	99	—	104
1918	117	90	159	103	95	159	—	119
1919	49	111	108	75	123	70	—	90
1920	51	87	60	109	137	93	—	92
1921	76	133	130	94	113	70	150	111
1922	49	95	44	85	145	85	70	83
1923	84	44	71	52	109	85	34	68
1924	54	116	126	108	106	146	103	106
Average								
1915-24	74	92	108	93	132	118	—	102
1925	40	92	60	135	67	71	134	83

DIARRHŒA AND ENTERITIS.—

The number of deaths under 2 years of age from these diseases during the year was 16, as compared with 7 in 1924.

The wards in which the deaths occurred are as follows:—

Farnworth	...	...	0	Victoria	...	...	...	4
Halton	...	...	3	Waterloo	...	...	...	3
Simm's Cross	...	...	1	West Bank	...	...	...	3
Ditton			...	...	...	2		

VITAL STATISTICS—WARDS IN THE BOROUGH—

	Farn- worth	Halton	Simms Cross	Vic- toria	Water- loo	West Bank	Ditton	Whole Boro'
Population
No. of Houses
Density of Population...
Birth-rate per 1000
Death-rate per 1000
Infantile Death-rate per 1000
Births
Zymotic Death-rate per 1000
Death-rate from Diarrhoea per 1000...
Death-rate from Phthisis per 1000
Total Deaths
Total Births

It is not possible to review in detail the statistical tables, so reference will only be made to the outstanding features.

It will be seen that there has been a steady decline in the Birth Rate during the past 30 years, and that the first marked fall occurred during the War period. The Birth Rate increased during the period 1920-1922, but during the year 1923 fell to 22.7, and has remained stationary since. The local rate is still higher than that of England and Wales.

The greatest reduction in the Death Rate, it will be observed, has occurred during the past twelve years—the period during which the greatest efforts have been put forward by the Authority to improve the health of the community. During this period the value of Preventive Medicine has been realised by the public, and more rapid progress has resulted. The conversion of privy middens, the abolition of ashpits, the making of streets, municipal housing, and the Maternity and Child Welfare services are the factors which have contributed to this improvement in the Death Rate. The mean death rates in the various Wards for the period 1920-1924 are as follows:—

Farnworth	...	...	10.7	Victoria	...	...	...	16.6
Simm's Cross	...	...	11.8	Waterloo	...	...	...	18.6
Halton	...	...	13.8	West Bank	...	...	...	13.1
			Ditton	...	...	...	...	12.6

These figures clearly illustrate the effects which housing and environment have on mortality rates.

The steady decline in Infant Mortality is a gratifying record. Reference to previous annual reports will show that, up to the year 1911, the main evident factors in the Infant Mortality were Summer Diarrhœa, and digestive disorders due to improper feeding. The conversion of the privy midden system has substantially conquered the problem of Summer Diarrhœa, and the Child Welfare department has, by its educational work, secured the better management of infants. These agencies may therefore be said to have been the chief factors in producing the lowered mortality. This improvement must not be regarded as a reason for contentment, for a vast amount of mortality is still preventable. We must not relax our efforts, but continue to secure the carrying out of the principles of hygiene thoroughly and sensibly.

If we analyse the table dealing with Infant Mortality and compare it with previous years, we notice that our methods have failed to diminish the mortality during the first month of life. Our efforts to reduce Infant Mortality have only been successful as regards the later months in the first year of life, and greater efforts on present lines will meet with further success. It will be seen in the table that 30 of the deaths occurred under one month, and that 50 per cent. of these were during the first week of life. These deaths mainly resulted from influences operating before birth. It is impossible to estimate the total ante-natal mortality, but some idea of its magnitude may be gained from the fact that 51 still-births were notified during the year 1925, as compared with 31 in 1920. The

reduction of the Infant Mortality which occurs during the first few weeks of life and of the number of still-births can only be secured by ante-natal supervision.

It would appear from the table on page 7 that the Death Rate from Pulmonary Tuberculosis has increased during the past 30 years. This, however, is not correct. This disease was only made notifiable in 1912, so that only statistics following that period can be utilised for purposes of comparison. It will be seen from the table that during the past five years there has been a slight reduction in the mortality from this disease. The following are the mortality rates from this disease in the various Wards during the years 1920-1924:—

Farnworth	...	...	0.7	Victoria	...	...	1.7
Halton	...	...	0.7	Waterloo	...	...	1.2
Simm's Cross	...	...	1.0	West Bank	...	...	0.7
Ditton	...	...	...	0.8			

These figures show that the mortality from this disease is highest in those districts where the worst housing conditions exist.

It must be realised that an annual report gives a very incomplete account of the incidence and effects of disease in the district. The statistical tables yield a record of the deaths, but give no account of those who have been maimed or disabled by disease; and the comparative tables only show the reduced mortality that has been achieved, and give no record of the reduction in the sickness rate. It should therefore be kept in mind that the methods which are adopted to diminish mortality will at the same time improve the general health of the community.

It is essential, if the best results are to be secured, if the greatest saving is to be effected, to take a wide view and endeavour to bring about a general improvement in *all* directions. The Local Authority, through the Child Welfare and Education Committees, has during the past five years endeavoured to provide a complete scheme for the supervision and treatment of the children in the area, and the results have been most encouraging. We must avoid, however, concentrating on Child Welfare, to the neglect of other important services. Effort and expenditure would be to a great extent negatived if we conserved the health of children, only to allow them to become the victims of tuberculosis during adolescence owing to unhealthy environment. Such a policy would neither be good from the public health standpoint, nor a wise one financially.

The aim should be to secure for the whole Borough the low rate of mortality which exists in the healthiest Ward of the Borough, and this can only be attained by the removal of those conditions which are inimical to health. Much could be achieved by concerted action on the part of all agencies which are concerned with the public health.

II. GENERAL PROVISION OF HEALTH SERVICES IN THE AREA.

(a) *Provided by the Local Authority—*

(1) *HOSPITALS—*

(a) The Isolation Hospital at Crow Wood has accommodation for 36 patients, and consists of (1) a block containing two large wards, day rooms and nurses' room; (2) a block, comprising five wards; (3) two observation wards; (4) discharging block; (5) administrative block; and (6) laundry, mortuary, and disinfecting station. The buildings are modern, bright and sanitary, and the wards are for the most part lined with tiles, which help to cleanliness. There are extensive grounds in which the convalescent patients can exercise.

(b) A Small-pox Hospital has been erected at Barrow's Green, on the outskirts of the Borough. This is a wooden building, with brickwork foundation, and could accommodate eight patients. The foundations of another ward have been laid, so that the erection of a similar building can be quickly arranged if necessary. This Hospital was last used in 1902.

(c) Accident Hospital, St. Mary's Road, has accommodation for 22 patients. This Institution is utilised for the treatment of accidents and other surgical cases. Operations for Tonsils and Adenoids are performed at this Hospital under the Local Education Authority's medical service.

A summary of the cases for 1925:—

Patients in Hospital, December 31st, 1924 ...	6
Admitted during 1925	91
Out-Patients during 1925	1006
Operations	130
Deaths	6
Patients in Hospital, December 31st, 1925 ...	7

The cases treated in 1924 were: Admissions, 82; out-patients, 962; and operations, 125.

(2) *AMBULANCE FACILITIES—*

The Local Authority has provided a motor ambulance for the removal of cases of Infectious Disease to Hospital.

Another motor ambulance is available, day and night, for use in cases of accident or acute illness, necessitating the removal of patients to Hospitals within or without the Borough.

Both ambulances are kept at the Isolation Hospital (Tel. No. 63).

The following table will not only indicate the amount of work done by the motor ambulance which is used for non-infectious cases, but will afford some idea of the number of residents who are admitted to Institutions outside the Borough:—

NO. OF PATIENTS CARRIED.

HOSPITAL.	1920		1921		1922		1923		1924		1925	
	To	From	To	From	To	From	To	From	To	From	To	From
Northern, L'pool ...	5	-	23	1	28	3	18	1	26	-	51	25
Royal, L'pool ...	10	-	7	-	9	-	7	1	9	1	31	17
St. Paul's Eye, L'pool ...	-	-	-	-	2	-	-	-	1	-	-	-
Southern, L'pool ...	1	-	4	-	-	-	2	1	7	-	13	3
Shaw St. Women's ...	1	-	3	-	1	-	3	-	4	2	12	2
Children's Infirmary ...	2	-	2	-	3	-	2	-	3	-	5	2
Brownlow Hill Maternity Hospital, L'pool ...	-	-	4	-	4	-	2	-	5	-	2	-
Warrington Infirmary ...	15	-	9	-	4	-	4	-	-	-	14	-
St. Helens Pilkington Hosp.	-	-	1	-	5	-	4	-	7	-	2	-
Prescot Union ...	1	-	1	-	-	-	-	-	2	-	1	-
Manchester Royal ...	-	-	-	-	2	-	1	-	-	-	-	-
Wigan Royal ...	-	-	-	-	-	-	2	-	-	-	1	-
Bootle Borough ...	-	-	-	-	-	-	1	-	-	-	-	-
Widnes Maternity Home ...	-	-	-	-	-	-	-	-	-	-	8	-
Widnes Accident Hospital (Accident cases) ...	11	-	31	-	18	-	12	-	17	-	39	-
Runcorn Cottage Hosp. ...	-	-	-	-	1	1	-	-	-	-	-	-
Wallasey Cottage Hosp. ...	1	-	-	-	-	-	-	-	-	-	-	-
Sanatoria ...	-	-	2	-	9	-	5	-	5	-	16	-
War Pension Hosps. ...	2	-	2	-	5	-	1	-	2	-	-	-
Nursing Homes, Liverpool	-	-	-	-	2	2	1	-	1	-	4	-

The mileage recorded during 1925 was 5,032, as compared with 912 in 1920.

(3) CLINICS AND TREATMENT CENTRES—

(a) Maternity and Child Welfare—

Consultations for Infants and Children as under:—

Town Hall ...	Wednesdays, 1-30 p.m.
Cooper Hall ...	Tuesdays, 1-30 p.m.
Halebank ...	Wednesdays, 3- 0 p.m.
Mill Brow ...	Thursdays, 1-30 p.m.

(b) School Clinics—

The above-mentioned Centres, with the exception of Halebank, are open daily from 9 a.m. to 5 p.m., for the treatment of Infants and Children.

(4) PUBLIC HEALTH OFFICERS—

Office Held.	Name.	Qualifications.	Other Offices Held.
Medical Officer of Health ...	Albert Jones, D.S.O., M.C.	M.D., D.P.H.	School Medical Officer and Certifying Factory Surg. Medical Superintendent of Corporation Hospitals. Inspector of Canal Boats and Market Supt.
Sanitary Inspector ...	Walter Lowe	M.S.I.A.	Inspectors Meat and Food
Do. ...	John G. Macdonald	M.S.I.A. Cert : Sanitary Science Univ. Liverpool Cert : Meat and Food Royal San. Inst.	
Do. ...	Edward F. Starkey	M.S.I.A. Cert. : Sanitary Science Cert. : Meat and Food Univ. Liverpool	
Clerk ...	Clarence A. Pennington	General Nursing Cert. Trained Nurse	
Matron of Isolation Hospital ...	Miss N. Milburn	Cert : Masseuse, L.O.S. Trained Nurse, L.O.S.	
Matron of Accident Hospital ...	Miss A. Nutter	Trained Nurse, C.M.B. Do. Do. Do. Do. Do.	
Health Visitor and School Nurses	Miss H. Robinson		
Do.	" E. A. Watkin		
Do.	" J. Passey		
Do.	" W. Turton		
Do.	" E. Barrow		
Do.	" A. L. Wright		
Do.	" N. Hunt		

*(b) Provided by other Bodies—**(1) MATERNITY HOME—*

During the year 1922 the Mayor (Alderman Caldwell) appealed for funds to provide a Maternity Home, and a generous response resulted. A well equipped Home was built adjacent to the Nurses' Home of the Queen's Nurses' Association, and there is accommodation for eight patients. The Institution is under the control of the Nursing Association.

(2) TUBERCULOSIS DISPENSARY—

This is provided by the County Authority, and the Tuberculosis Officer attends on Monday mornings, Wednesday evenings, and Friday afternoons.

*(3) PROFESSIONAL NURSING IN THE HOME—**(a) General—*

The general home nursing in the town is carried out by the Widnes Queen's Nursing Association. The staff, with headquarters at Highfield Road, consists of a matron and eleven nurses. They will attend any case at the request of a medical practitioner. They visit children after operation for tonsils and adenoids, and receive £50 per annum from the Education Authority for these services.

(b) Infectious Diseases—

Arrangements have been made by the Local Authority for the nurses of the District Nursing Association to undertake the nursing of children suffering from measles and whooping cough. For these services the Local Authority pays £50 per annum.

(4) MIDWIFERY—

The number of midwives practising in the Borough during 1925 was 16. This is adequate for the needs of the town.

(5) POOR LAW RELIEF—

I am indebted to the Medical Officer of the Whiston Infirmary and to the Relieving Officers for the following statements respecting indoor and outdoor relief:—

(a) Indoor Relief—

			Under 16 Years of Age.	Adults		Total.
				M.	F.	
Infirmary ...	...	...	43	108	39	190
Workhouse	...	...	3	40	12	55
Total			46	148	51	245

(b) Outdoor Relief—

			Children	Adults		Cost		
				M.	F.			
Ordinary	...	...	432	99	272	£7,951	7	5
Unemployed	...	...	324	143	126	£2,055	19	10
Total		...	756	242	398	£10,007	7	3

The cost of outdoor relief in 1920 was £4,787.

III. SANITARY CIRCUMSTANCES OF THE AREA.

WATER SUPPLY—

The water supply of the Borough is obtained by pumping from deep wells in the sandstone. The Borough possesses wells at Stockswell, Netherley, and Belle Vale. The water is periodically analysed, and has always been found good in quality and practically free from bacteria. This is very satisfactory, especially when it is remembered that the water undergoes no treatment or filtration of any kind. With the exception of a few isolated farms, every house in the Borough has a good and constant water supply.

The pumping stations have been periodically inspected by the Engineer and Medical Officer, and improvements have been made from time to time to minimise the possibility of pollution.

The latest analysis is as follows:—

(a) Results expressed in parts per 100,000:

Sample from	Netherley Result.		Stockswell Result.		Belle Vale Result.	
	Present	Previous	Present	Previous	Present	Previous
Total Solids in solution ...	16.0	17.6	17.6	19.2	15.2	15.6
Oxygen absorbed from Permanganate in 15 mins. ... ..	.002	Nil.	.007	.002	.009	.000
Oxygen absorbed from Permanganate in 3 hrs.	.006	.002	.013	.004	.014	.001
Ammonia	Nil.	.003	Nil.	Nil.	.002	.001
Albuminoid Ammonia ...	.003	.004	.002	.001	.008	.001
Nitrogen as Nitrates ...	.23	.33	.18	.24	Nil.	.02
Nitrogen as Nitrites ...	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.
Combined Chlorine ...	2.6	2.4	2.1	2.1	2.3	2.3
Total Hardness (as Ca CO ₃)	9.6	9.6	13.2	11.2	8.8	9.0
Permanent Hardness (as CO ₃)	8.0	8.8	8.2	10.4	6.5	7.4

Remarks in reference to PRESENT Samples—

Stockswell, Netherley and ... Samples from the three Stations
Belle Vale are excellent waters for drink-
ing and domestic use.

Remarks in reference to PREVIOUS Samples—

Stockswell and Netherley ... Both samples are excellent water
for drinking and domestic use.
Belle Vale ... This is an exceptionally pure
water.

(b) Reports on three samples of Water examined by Prof. Beattie,
M.A., M.D., Liverpool University, compared with results of
previous examination:

Sample from		Bacteria per cc.	Colon Bacilli.
Stockswell	Present	5	— in 100 c.cs.
	Previous	9	— in 100 c.cs.
Netherley	Present	10	— in 100 c.cs.
	Previous	23	+ in 100 — in 80c.cs
Belle Vale	Present	11	— in 100 c.cs.
(Common Sample)			
No. 1 Borehole	Previous	6	— in 100 c.cs.
No. 2 Borehole	Previous	Liquefied	— in 100 c.cs.
+ Present.		— Absent.	

DRAINAGE AND SEWERAGE—

The Borough, excluding the areas mentioned below, is very efficiently drained and sewered, the sewage being taken by three main outfall sewers into the Estuary of the Mersey. In addition there are various outfalls for the drainage from the chemical works, so that very little chemical matter finds its way into the main sewers. The main sewers are provided with automatic flushing syphons which flush three times during the 24 hours. A large tank wagon, which contains 1,800 gallons of water, is also used for flushing purposes. Sewer cleaning is carried out by winches with chains and dredge buckets. The sewers are well ventilated by means of numerous shafts, the manholes in the streets being air-tight.

The sewers are in good order and appear to be adequate for the needs of the town except in isolated areas, viz., Lunt's Heath, Upton, Moorfield Road, and the northern portion of Ditton Ward. These districts, which are inadequately sewered, are definitely rural in character, and to provide for each a complete system of sewers would be difficult and costly.

Building development is, however, taking place in the northern part of the town, and would, no doubt, extend towards the Upton area if adequate drainage existed. A scheme for the sewerage of this area needs the consideration of the Local Authority in order to encourage the further erection of houses by private enterprise.

CLOSET ACCOMMODATION—

The types of closet accommodation existing in the Borough are:—

- (1) Privy Midden,
- (2) Waste-Water Closet, and
- (3) Fresh-Water Closet.

The vital statistics for the twenty years prior to 1911 show that enteric fever was a prevalent disease; also that Widnes had a high infantile mortality rate, which was largely due to summer diarrhoea. The chief sanitary requirement of the Borough was, therefore, the conversion of privies and ashpits. This important work was commenced in the year 1911, and the rate of progress is indicated in the following table:—

Year.	Farnw'th.	Halton.	Simms Cross.	Vict'ia	W'terloo.	West Bank.	Ditton	Total.
1911	70	18	116	26	7	18	—	255
1912	24	47	139	117	67	99	—	487
1913	15	95	35	172	182	308	—	807
1914	46	177	426	486	336	—	—	1471
1915	2	64	191	3	1	—	—	261
1916	19	11	18	4	—	—	—	52
1917	—	—	—	—	—	—	—	—
1918	10	2	—	6	2	—	—	20
1919	13	7	—	—	—	—	—	20
1920	34	161	—	3	1	—	—	199
1921	41	10	—	—	—	—	26	77
1922	24	15	—	2	—	—	169	210
1923	2	—	—	—	—	—	154	156
1924	—	9	—	—	—	—	8	17
1925	3	44	—	4	—	—	31	82
TOTAL :	303	660	925	823	590	425	388	4114

The majority of the privies which remain are situated in the rural parts of the area. The only urban parts of the Borough where privies still exist are the Johnson Street area, Lea Street district, and William Street, Ditton. Those in the Johnson Street area will be demolished when the re-housing scheme is completed; those in Lea Street will be dealt with during the current year; and those in William Street will be proceeded with as soon as the necessary alterations to the sewer are completed. Representations have been made on many occasions, during recent years, to the Highway Committee, in respect to groups of houses where conversion could not be effected owing to the inadequacy of the drainage, and a sufficient sewer has been laid

in each case. The real co-operation which has been rendered by that Committee in the carrying out of this important sanitary improvement is gratefully acknowledged.

The following table indicates as accurately as possible the number of the respective conveniences existing in the Borough at the end of 1925:—

	Farn- worth	Halton	Simm's Cross	Vict'ria	Water- loo	West Bank	Ditto n	TOTAL
Privies ...	119	69	12	—	—	—	311	511
Fresh Water Closets	1294	923	1029	967	671	500	588	5972
Waste Water Closets	526	138	200	95	210	293	—	1462

Waste water closets are a frequent source of nuisance, and it is most desirable that they should be converted into fresh water closets. Many owners have expressed their willingness to carry out the alteration if they can secure financial help from the Authority; the Authority is quite prepared to assist, but Ministerial sanction has up to the present been withheld. A further effort should be made to secure the necessary sanction of the Ministry of Health to contribute to the cost of substituting fresh water closets for waste water closets.

REFUSE REMOVAL—

This work is carried out entirely by the Highway Committee.

The number of the respective receptacles for household refuse at the end of 1925 is approximately as follows:—

	Farn- worth	Halton	Simm's Cross	Vict'ria	Water- loo	West Bank	Ditton	TOTAL
Ashpits in associa- tion with privies ...	119	69	12	—	—	—	311	511
Dry Ash- pits ...	13	1	—	—	—	—	37	51
Bins ...	1807	1060	1229	1062	881	793	551	7383

The dry ashpits which were converted into bins were situated in the various Wards as follows:—

YEAR	Farn- worth	Hal- ton	Simms Cross	Vic- toria	Water- loo	West Bank	Ditton	TOTAL
1913	—	2	17	25	118	294	—	456
1914	167	52	154	73	36	—	—	482
1915	128	65	36	32	—	—	—	261
1920	150	13	—	13	—	—	—	176
1921	47	38	—	—	—	—	—	85
1922	5	8	12	10	—	—	20	55
1923	—	—	—	—	—	—	100	100
TOTAL...	497	178	219	153	154	294	120	1615

REFUSE DISPOSAL—

All the nightsoil is removed to farmer's land. Dry refuse is conveyed to the Destructor, where it is in the first place screened. That portion which is unburnable is removed to an adjacent tip, the remainder being incinerated. The Destructor is a three cell, Stirling type, with a capacity of 16 tons per shift of eight hours.

STREETS AND SCAVENGING—

The main road in the Borough is paved with granite setts; the secondary road and made streets with tar macadam or macadam which is tar sprayed. A tar macadam plant is associated with the Refuse Destructor, and the tar macadam used on roads is obtained from this source.

During the past five years a large number of private streets and passages have been made at the instigation of the Highway Committee, and during the current year it is expected to complete all the streets in the area. This work, in addition to improving the amenities of the various districts, will have an influence on the health of the residents.

The scavenging of streets and back passages is carried out by the Corporation workmen, under the supervision of the Highway Committee.

SANITARY INSPECTION OF THE DISTRICT—

A record of the work of the Sanitary Department is as follows:—

Defects or Nuisances: No. Discovered	946
No. Abated	946
No. of Notices served: Informal	379
Statutory	52
No. of Legal Proceedings taken	Nil
No. of Premises visited	2838

Premises kept under observation	Number of Premises	Number of Inspections
Workshops and Workplaces ...	94	188
Factories (Sanitary accommodation)	79	158
Bakehouses	37	74
Slaughterhouses	6	32
Milkshops	49	49
Cowsheds	27	68
Common Lodginghouses	5	15
Visits to premises where cases of In- fectious Diseases have occurred...	—	921
No. of premises disinfected after cases of Infectious Disease ...	394	—
No. of articles disinfected by steam disinfector... ..	4,164	—

The chief matter of sanitary environment which requires attention is the paving of yards. Many of the yards in the older parts of the town are paved with cobbles or other unsuitable material. The Local Authority possesses a bye-law under which it can require yards to be paved with an impervious material, and in order to prevent the pollution of soil and to further promote cleanliness it is desirable that this bye-law should be enforced.

IV. HOUSING.

(1) *GENERAL HOUSING CONDITIONS IN THE AREA—*

A large number of the houses and their out-buildings are old, and in poor structural repair. The worst property exists in Waterloo and Victoria Wards; in the Pleasant Street district of Halton Ward; and in isolated parts of North Farnworth and Halebank. The housing conditions in the Water Street and Wellington Street areas of Waterloo Ward are very bad—apart from being structurally defective, there is close aggregation of the houses and the back passages are narrow. The structure of the houses on the east side of Ann Street is below the standard of those on the west side. The houses in the latter district have, in addition, a large open space on the western side. The houses in the West Bank Ward, especially those in the western portion, are better than those referred to. The houses in Simm's Cross Ward are similar to those in West Bank, but many of them are closely aggregated in long streets, and there is an insufficiency of open spaces. Elsewhere the houses are of comparatively modern construction.

There is an acute shortage of houses, and it is estimated that 500 are still needed to meet the demands.

Seventy acres have been acquired by the Local Authority on the Kingsway site; the land has been laid out, fifteen acres have been allocated for private development, and the remainder will be utilised for a municipal housing scheme. Twenty houses have been erected during the year on the westerly side, and it has been decided to carry out a scheme for the building of 400 houses during the next two years. The shortage of houses is being felt most keenly, and will only be eased by rapid progress being made with this scheme.

(2) *OVERCROWDING—*

It is impossible to accurately state the amount of overcrowding that exists. Owing to the house shortage there are large numbers of houses which are occupied by more than one family, and overcrowding occurs. Overcrowding is also due to the large proportion of dwellings which contain only two bedrooms.

The desirability of only providing houses containing three bedrooms in municipal schemes is strongly urged.

(3) *FITNESS OF HOUSES—*

Apart from the districts mentioned in paragraph 1, the fitness of houses is generally satisfactory. It is a matter for regret that a large proportion of houses are without baths and suitable storage for food.

The chief defects found to exist in unfit houses are—roofs, floors, and internal walls. The defects are due in greater measure to the lack of proper management and supervision by owners than to acts of waste or neglect by tenants. Many owners do not give the necessary attention to defects when they are first pointed out. By reason of this early neglect the defects become worse and more extensive repairs are required. When owners show indifference to such conditions as defective roofs, it is not to be wondered that tenants should become careless.

With a view to securing an improvement in one district a meeting of owners was convened, and the Medical Officer outlined the requirements of the department. The results of such a meeting have been most disappointing, and lend encouragement to the inference that the property is not worth conserving.

With the exception of a few houses in Farnworth Street, William Street, Cliffe Street, and Oxford Street, every house in the Borough has provision for through ventilation.

It is not possible to deal with individual unfit houses while the house shortage is acute. Many houses need to be dealt with by closing orders, but to do so now would simply intensify overcrowding.

(4) *UNHEALTHY AREAS*—

An official representation was made in the year 1924 with respect to Johnson Street area. An improvement scheme for this area received the approval of the Ministry of Health, and it is expected during the current year to commence the erection of the 84 houses which will be available for the tenants who will be dispossessed.

The necessity for dealing with other areas will be considered as soon as progress is made with the schemes at present in hand. The vital statistics afford conclusive evidence of the evil effects of poor housing conditions, particularly in relation to Tuberculosis, and substantial progress in the reduction of mortality from this disease will not be made until we secure the clearance of all unhealthy areas.

(5) *MISCELLANEOUS*—

The value of open spaces near congested areas cannot be over-estimated, and it is hoped that they will be preserved. A beneficial development has occurred during the past five years in the provision of recreation grounds for the workers. Practically every works is now in possession of a well laid-out recreation ground, and large numbers avail themselves of the opportunities which are thus afforded for outdoor exercises.

(6) *NO. OF NEW HOUSES ERECTED DURING THE YEAR—*

(a) Total (including numbers given separately under <i>b</i>) ...	64
(b) With State assistance under the Housing Acts—	
(i.) By the Local Authority	20
(ii.) By other bodies or persons	34

(7) *UNFIT DWELLING-HOUSES—*

(a) Inspection—

(i.) Total number of houses inspected for housing defects (under Public Health or Housing Acts)	946
(ii.) Number of houses which were inspected and recorded under the Housing Regulations, 1910	250
(iii.) Number of houses found to be so dangerous or injurious to health as to be unfit for human habitation	3
(iv.) Number of houses found not to be in all respects reasonably fit for human habitation	946

(b) Remedy of defects without service of formal Notices—

Number of defective houses rendered fit in consequence of informal action by the Local Authority or their Officers	894
---	-----

(c) Proceedings under Sections 11, 14 and 15 of the Housing Act, 1925—

(i.) Number of representations made with a view to the making of Closing Orders	3
(ii.) Number of dwelling-houses in respect of which Closing Orders were made	3
(iii.) Number of dwelling-houses in respect of which Demolition Orders were made	1

V. INSPECTION AND SUPERVISION OF FOOD.

(a) *MILK SUPPLY—*

There are 27 cowsheds on the Register, and they are in actual use.

The number of premises registered as Milkshops is 49. These are regularly inspected, and the owners must conform to the Dairies, Cowsheds, and Milkshops Regulations which have been adopted by the Borough.

The bulk of the milk supply is obtained from cowkeepers in Cheshire. The standard of cleanliness is not as high as is desirable, and evidence points to the milk being largely contaminated at the farms. Nine samples were taken during the year 1924, and two in 1925, and submitted for bacteriological examination. The report in each case was negative for Tubercle bacilli, but Colon bacilli were found in every sample. This shows that no attempt at cleanliness is exercised during milking.

(b) *MEAT*—

It is the policy of the Local Authority to inspect all slaughter-houses under the Public Health (Meat) Regulations, 1924. The number of animals inspected during the year was:—

Pigs	...	...	...	...	...	763
Oxen	...	...	...	...	...	30
Calves	...	...	...	...	...	4
Sheep	...	...	...	...	...	116

The amount condemned as unfit for human consumption was: Tuberculous carcasses and parts, 416 lbs.; other diseased meat, 180 lbs. All condemned meat is removed to the Destructor for incineration.

The number of private slaughter-houses in use in the area is as follows:—

		In 1920.		In January, 1925.		In December, 1925.
No. registered	...	6	...	7	...	7
No. licensed	...	6	...	7	...	7

(c) *OTHER FOODSTUFFS*—

The amount of other food condemned during the year was one box of kippers, 48 lbs. tomatoes, one barrel of grapes, and five cases of cured haddocks.

There are 37 bakehouses in the Borough. They were inspected by the Medical Officer during the year, and were found to be in a satisfactory condition.

The number of samples taken during the year under the Sale of Food and Drugs Act and Milk and Cream Regulations was:—

Milk	...	99	Prosecutions	...	4
Other foodstuffs	...	23	„	...	Nil

VI. PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASE.

(i.) NOTIFIABLE DISEASES DURING THE YEAR—

DISEASE				Total cases notified	Cases admitted to Hospital	Total Deaths.
Diphtheria	...	...	...	60	60	4
Scarlet Fever	...	...	...	147	134	4
Enteric Fever (including Paratyphoid)	...	...	...	1	1	1
Puerperal Fever	...	...	...	3	—	1
Pneumonia	...	...	...	134	—	41
Erysipelas	...	...	...	16	—	—
Ophthalmia Neonatorum	...	...	...	1	—	—
Encephalitis	...	...	...	1	—	1
Tuberculosis—						
(a) Pulmonary	...	{ M	...	44	—	28
		{ F	...	28	—	13
		{ Total		72	—	41
(b) Non-Pulmonary	...	{ M	...	42	—	8
		{ F	...	30	—	3
		{ Total		72	—	11

(ii.) ANALYSIS OF NOTIFIABLE DISEASES IN AGE GROUPS—

		CASES NOTIFIED.													
		Total cases at all ages	Un- der 1	1-2	2-3	3-4	4-5	YEARS							65 and over
								5-10	10-15	15-20	20-35	35-45	45-65		
Diphtheria ...	...	60	—	3	2	5	7	32	7	1	2	—	—	—
Scarlet Fever	...	147	3	6	7	7	16	65	28	2	11	2	—	—	
Enteric Fever	...	1	—	—	—	—	—	—	1	—	—	—	—	—	
Puerperal Fever	...	3	—	—	—	—	—	—	—	—	2	1	—	—	
Pneumonia	...	134	5	20	19	11	4	27	6	10	17	8	5	2	
Erysipelas ...	...	16	—	—	—	1	—	—	—	2	1	2	8	2
Ophthalmia	...	1	1	—	—	—	—	—	—	—	—	—	—	—	
Encephalitis	...	1	—	—	—	—	—	—	—	—	—	—	1	—	
Pulmonary T.B	M.	44	—	—	—	—	—	2	4	5	7	14	12	—	
	F.	28	—	—	1	—	—	2	1	6	10	2	5	1	
Non-Pulmonary	M.	42	—	1	2	2	4	13	8	6	2	1	2	1	
Tuberculosis	F.	30	1	1	—	5	—	9	4	5	5	—	—	—	
TOTALS		...	507	10	31	31	31	31	151	59	37	57	30	33	6

(iii.) *WARD DISTRIBUTION OF NOTIFIABLE DISEASES—*

Return of Infectious Diseases notified, shown in the various Wards in which they occurred for the year 1925:—

DISEASE	Farnworth.	Halton.	Simms Cross.	Victoria	Waterloo	West Bank	Ditton	Totals
Diphtheria and Membraneous Croup ...	14	8	5	17	6	4	6	60
Erysipelas ...	4	4	3	1	1	—	3	16
Scarlet Fever ...	38	15	19	24	9	14	28	147
Enteric Fever ...	—	—	—	—	—	—	1	1
Puerperal Fever ...	1	—	2	—	—	—	—	3
Ophthalmia Neonatorum ...	1	—	—	—	—	—	—	1
Pneumonia ...	17	37	22	32	7	16	3	134
Encephalitis ...	1	—	—	—	—	—	—	1
Tuberculosis—								
Phthisis ...	9	12	8	12	13	9	9	72
Other Forms ...	13	7	14	10	14	4	10	72
TOTALS ...	98	83	73	96	50	47	60	507

SCARLET FEVER was prevalent during the years 1923 and 1924, but there was a marked decline during 1925.

DIPHTHERIA was prevalent during the summer of 1924. The disease was not confined to any area of the Borough, but the largest number of positive cases occurred among the junior girls attending St. Bede's School. Fewer cases were notified during the year 1925 than during any of the preceding five years. Every effort has been made to secure the early detection of cases of Diphtheria, and the medical profession have co-operated in this endeavour.

An ample supply of anti-toxin is kept at the Isolation Hospital, Police Station, and Town Hall. The amount of anti-toxin used during the year was: 168 phials of 8,000 units and 84 phials of 4,000 units.

BACTERIOLOGICAL EXAMINATIONS: Arrangements have existed for some years for bacteriological examinations to be carried out at the laboratory of Messrs. Evans, Sons, Lescher and Webb, Crofton Lodge, Runcorn. The bulk of the specimens sent for examination are for the Diphtheria Bacillus. The examination of sputum for the Tubercle Bacillus is carried out by the Tuberculosis Officer.

No. of specimens examined in 1925:—

Blood ...	2	Throat Swabs ...	266
Sputum...	1	Others ...	1

DISINFECTION: A Steam Disinfector is stationed at the Isolation Hospital for the disinfection of bedding, etc. 4,164 articles were disinfected after the occurrence of infectious disease; also after the removal of tuberculosis patients to Sanatoria or where death has taken place from Phthisis. The number of houses disinfected during the year was 394.

PUERPERAL FEVER AND OPHTHALMIA NEONATORUM: Few cases of these diseases were notified during the year. Doctors and Midwives have been urged to report such cases early. Expert advice is available for cases of Puerperal Fever, and admission to the Isolation Hospital is available where it is desirable. Cases of Ophthalmia requiring hospital treatment are admitted to St. Paul's Eye Hospital, Liverpool.

In regard to Ophthalmia Neonatorum, particulars of the only case notified in 1925 are appended:—

Notified	Cases		Vision Unim- paired	Vision Impaired	Total Blind- ness	Deaths
	Treated					
	At home	In hospital				
1	—	1	1	—	—	—

TUBERCULOSIS: The figures in the statistical tables show that there has been little diminution in the mortality from this disease. This is not surprising when one has regard to the amount of overcrowding and poor housing conditions that exist in portions of the Borough. The healthy home is the first necessity in the prevention of consumption. The ward statistics, taken over a period of years, furnish an interesting contribution to the linking up of the dwelling as the predisposing cause of phthisis, but these figures do not give a complete account of the loss of life from tuberculosis in insanitary areas. In the unwholesome areas, where there is an aggregation of houses, narrow passages, etc.—where fresh air and sunshine find access with difficulty—the death rate from this disease is more than double the rate in the residential portion of the town. Representations with regard to certain areas will be submitted in the near future.

The County Authority is responsible for providing treatment for tuberculosis. A Dispensary has been established at Brendon House, where patients are examined by the County Tuberculosis Officer. The medical practitioners avail themselves of the facilities for diagnosis, and cases are now discovered at an earlier stage than formerly. The amount of sanatorium accommodation has been increased, and little delay is incurred in securing the admission of patients from this area. Some of the benefit derived from sanatorium treatment is negated by present house shortage—many of the homes to which patients return being overcrowded and unsuited to their needs.

It is advisable that such patients should be provided for in the further municipal housing scheme. A further requirement is the provision of hospital accommodation for advanced cases. Numerous instances can be cited of successive cases occurring in houses owing to infection from "open" cases, and the tuberculosis scheme will be incomplete so long as advanced cases are not effectively isolated.

A whole-time nurse is provided by the County Authority to carry out domiciliary treatment and supervision. The reports of the nurse with respect to house defects are received by the Medical Officer and dealt with by the Department. There is the closest co-operation between the staffs of the two Authorities.

VII. MATERNITY AND CHILD WELFARE.

The Authority has now a staff of seven whole-time nurses, the additional nurse being appointed in December, 1925. Each nurse carries out the combined duties of health visitor and school nurse in a defined area. The majority of the midwives co-operate with the staff, and do their utmost to promote the welfare of their patients.

The record of home visits paid during the year is:

To Expectant Mothers: First Visits ...	95	Total Visits ...	176
Infants under 1:	1055	.. ..	4807
Children 1—5: — — —		.. ..	1734

Four Centres have been established and infant consultations are held there weekly. The accommodation at the Town Hall Centre is now inadequate for the work, and some additions to the present premises is urgently needed. Representations have been made to the Education Authority with respect to the necessity for lavatory accommodation for school children who attend for dental treatment, so any scheme of extension needs to be considered jointly. Every effort is made to secure the regular attendance of mothers with their babies at the Centres. The value of this educational work may be estimated from the fact that rarely does the death occur of an infant which has regularly attended a Centre.

The foodstuffs supplied are principally dried milk, Virol, and cod liver oil and malt. Applicants for foodstuffs at reduced rates, or free, are required to fill up a form giving particulars of income, etc., and the application is granted or refused in accordance with a scale of income, which has been fixed by the Committee. It is a condition in all cases, even where the full price is paid, that the specific article has been prescribed by the Medical Officer or Nurse, and that the child is regularly brought for supervision.

The whole of the medical work is carried out by the Medical Officer, and with the increasing attendances at the Centres it is becoming difficult for him to satisfactorily discharge the duties single-handed. Arrangements are made for infants needing institutional treatment to be admitted to the Children's Infirmary, Liverpool.

A scheme was submitted and approved during the year for the establishment of an Ante-Natal Clinic at the Mill Brow Centre. The scheme was put into operation at the beginning of the current year, and provided for fortnightly sessions to be held. The Committee was fortunate in being able to secure the services of Professor Briggs to carry out this important work, and is confident of the success of the scheme.

A scheme for the examination and treatment of crippled children was submitted and approved during the year. This was put into operation in January of this year. Mr. T. P. McMurray, F.R.C.S., was appointed as Orthopædic Specialist, with Miss E. L. Bartlett as whole-time after-care sister. A Centre was established at Mill Brow, and the complete equipment was generously provided by the United Alkali Co. Arrangements have been made for the admission of children requiring operation to the Heswall Branch of the Liverpool Children's Infirmary. This scheme is a most valuable adjunct to the Authority's arrangements for attending to the health of children.

Very useful and important voluntary work is being done in connection with Maternity and Child Welfare. A Ladies' Sewing Guild has been established in the Borough. Suitable infant garments are made by the members of the Guild, and these are sold at cost price at the Centres. The members, in addition to the making of garments, contribute annually to the Guild, and the balance in hand has been set aside for the provision of appliances for crippled children. Sewing and cookery classes for young mothers are conducted at the Mill Brow Centre, and every encouragement and assistance should be given to the development of this valuable work. Voluntary workers attend at the Centres on the days when the Medical Officers are present, and serve tea to the mothers. These ladies also provide an annual Christmas tea for mothers who have regularly attended the Welfare Centres during the year.

VIII. FACTORY AND WORKSHOPS ACT.

In compliance with Section 132, I have to report on inspections under the above Act and also send a copy of the report to the Secretary of State.

A Register is kept of all factories and workshops, and from the tabulated statement it will be seen that there are 131 registered workshops in the Borough, including 37 bakehouses. There are no underground bakehouses.

(i.) INSPECTION.

Including Inspection made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Inspections.	Number of		Prosecutions.
		Written Notices		
Factories ...	158	10	...	Nil
Workshops ...	125	19	...	Nil
Workplaces ...	63	Nil	...	Nil
	<hr/>	<hr/>		<hr/>
Total ...	346	29	...	Nil

(ii.) DEFECTS FOUND.

Particulars.	Number of Defects Found.	Defects Remedied.
Nuisances under the Public Health Acts—		
Want of cleanliness	16	16
Want of ventilation	Nil	Nil
Overcrowding	1	1
Want of drainage of floors	11	11
Insufficient sanitary accommodation...	1	1
Total	<hr/> 29	<hr/> 29

(iii.) HOME WORK.

One notice was received from employers affecting one outworker engaged in the Tool-making industry.

(iv.) REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.

	Number.
Confectioners	23
Bakehouses	37
Dressmakers	10
File Cutters	3
Millinery	6
Laundries	9
Tailors	5
Others	38
Total number of Workshops on Register	<hr/> 131

